

SPEECH RECEIVING DEVICE AND VISEME EXTRACTION METHOD AND APPARATUS

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Abstract of the Disclosure

A technique for extracting visemes includes receiving successive frames of
10 digitized analog speech information obtained from the speech signal at a fixed rate (210),
filtering each of the successive frames of digitized analog speech information to
synchronously generate time domain frame classification vectors at the fixed rate (215,
220, 225, 230, 235, 240), and analyzing each of the time domain classification vectors
(250) to synchronously generate a set of visemes corresponding to each of the
15 successive frames of digitized speech information at the fixed rate. Each of the time
domain frame classification vectors is derived from one of the successive frames of
digitized analog speech information. N multi-taper discrete prolate spheroid sequence
basis (MTDPSSB) functions (220) that are factors of a Fredholm integral of the first kind
may be used for the filtering, and the analyzing may use a spatial classification function
20 (250). The latency is less than 100 milliseconds.